REMARKS

In **Paragraph 1**, acceptance of applicant's request for continued examination under 37 CFR 1.114 is acknowledged, as is the Examiner's withdrawal of the final rejection in this case pursuant to 37 CFR 1.114. Finally, the acceptance and entry of applicant's paper filed 8/20/2004 is similarly acknowledged.

In **Paragraph 2**, the Examiner indicates that the final rejection in the previous case has been made moot by in view of the newly discovered Small reference (USP 6,040,870). It is said that Small teaches that it is desirable to utilize the overscan portion of a video signal to transmit any data, since the overscan portion is generally not viewable by TV users. It is further said that one of ordinary skill in the art would have been motivated to transmit any data, including EPG data, within the non-viewable range of scan lines, i.e., the overscan portion. In reply, applicant vigorously contests this statement and will respond below in connection with the formal rejections.

In **Paragraph 3**, the Examiner sets out the 35 USC 103(a) basis for obviousness rejections. No response to this statement is believed to be required.

AMENDMENTS TO THE CLAIMS

Claims **17, 22, and 30** have been modified to make clearer the invention applicant claims as his own. In more particular, these claims have been revised to reflect the fact that the instant invention operates on a standard NTSC video signal to add control information thereto. Further, after the addition of such control information the NTSC signal is still compliant with the standard. This method of encoding and transmitting binary information is clearly described in

numerous locations in the instant application including, for example, page 27 line 22 through page 28, line 11. As such, the amendments offered above do not constitute new matter.

New Claims 40 and 41 have been offered by way of amendment *supra*. The additional limitation added by these claims (i.e., that the two levels of the bi-level video signal that is used to transmit digital information within the overscan region correspond to "black" and "white" video signals) is fully disclosed in the specification of this application (e.g., on pages 27 and 28). As a consequence, neither of these additional claims constitutes new matter.

CLAIM OBJECTIONS AND REJECTIONS

General Comments

It should be noted as an initial matter that Small (USPN 6,040,870) does not transmit data according to the NTSC standard as is required by the instant invention. Consider, for example, Small's scheme for encoding digital information set out in Figure 3 and explained further in column 7, lines 1-24. Note that at no time does Small endeavor to keep the information that is stored in the overscan portion of the image compatible with the NTSC standard. Instead, he creates a digital signal that is suitable for transmitting digital information but which does not meet the NTSC specification.

This is in contrast to the approach of the instant inventor as explained on page 27 line 22 through page 28 line 11. More particularly, the preferred method of transmitting information used by the instant invention involves creating a series of "black" and "white" video levels that correspond to the "zeros" and "ones" in the binary representation of the digital value that is to be embedded in the scan line. As is provided by the NTSC standard, the video signal that follows the color burst information in each scan line is actually a black and white (i.e., two level) scan

line and applicant utilizes that portion of the signal to embed digital information therein. Thus, applicant creates a fully NTSC-compliant video signal within the overscan region of a video image – a standard video signal where the black and white portion of the signal carries digital information from the head end to the remotes.

In summary, applicant could find no evidence in any of the references cited by the examiner of a suggestion or teaching that digital information might be embedded within a scan line in the manner that the applicant has suggested. As a consequence, the instant claims as amended are believed to be in condition for allowance.

Rejections under 35 U.S.C. 103

Summary of the Examiner's Arguments:

According to **Paragraphs** 3 and 4 of the Office Action, Claim 17 stands as rejected under 35 USC 103(a) as being unpatentable over Perlman (USPN 6,125,259), in view of Small (USPN 5,828,402) and Collings (USPN 5,838,402).

It is said that, considering amended claim 17, the claimed remote unitary module (RM) for controlling access to a plurality of video channels over a communications network reads on the operation of the video blocking apparatus set-top converter 507, STC show in Fig. 4 of Perlman. It is further said that Perlman teaches a communications network with a head end, a RM, and it is said that the RM is provided with a changeable list of permitted video channel numbers. It is still further said that the parental control circuitry is located on the user's premises and the user is able to choose a list of channels permitted to be viewed.

It is further said that, regarding the claimed feature of the changeable list containing at least one permitted video channel number, the applicant is directed to Perlman at col. 3, lines 51-60. Additionally, it is said that, with respect to the amended claim feature of transmitting the changeable list of permitted channels within the overscan portion of the scan line(s) of a standard video signal, Perlman is said to disclose that EPG data may be transmitted on an out-of-band channel. It is still further said that Small teaches transmitting any data or information in the overscan portion of a video signal.

It is then said that it would have been obvious for one of ordinary skill in the art to modify Perlman with the technique of transmitting data in the overscan portion of a video signal for the desirable benefit of taking advantage of scan lines that are already included in a standard video signal, but are generally not displayed.

Further, it is said that Perlman is direct to prohibiting the display of video channels not included within the list of permitted channels.

It is also said that the claimed RM comprising a first tuner in electronic communication with the communication network is met by the operation of the tuner in conjunction with the STC, with the baseband output associated with a particular video channel number being provided Perlman's delivery of TV signals to a TV set when the blocking apparatus is included within a STC. It is said that the claimed means for changing the first tuner to receive a different video channel is necessarily included in Perlman, in that the user is enabled to select a variety of TV channels. The combination of Perlman & Small reads on the claimed feature of extracting at least a portion of the changeable list of permitted channels from at least one transmitted overscan line. The additionally claimed CPU that senses that the tuner is tuned to a different channel

number and determining whether the different channel number is in the changeable list is met by the operation of the microprocessor 301 that controls the circuitry.

Finally, as for the claimed feature of switching between a digital image stored in RAM and the baseband video signal, Perlman is said to merely teach switching to another channel that is authorized. However, Collings is said to teach that when the video signal is being blocked an alternative video signal containing a graphic image may be displayed to the viewer, which reads on the claimed feature. Thus, it is said that it would have been obvious for one of ordinary skill in the art to modify Perlman with the technique of switching to a graphic image if a video channel is blocked, at least for the desirable advantage of informing the subscriber that the requested video channel has been blocked as is said to have been taught by Collings.

Applicant's reply:

General Comments

In speaking of rejections under Section 103, the Federal Circuit has always required that the examiner provide a suggestion or motivation for the applicant's invention from disclosures found *in the prior art* to justify an allegation of obviousness. "The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification". *In re Fritch*, 23 USPQ 2d 1780, 1783-84 (Fed. Cir. 1992).

Further, examiners are cautioned not to use hindsight reconstruction in rejecting claims under Section 103, nor is it permissible to pick and choose from isolated disclosures to recreate

the invention under examination. Consider, for example, *In re Fritch*, 23 USPQ 2d 1780, 1784 (Fed. Cir. 1992):

> **It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious.** This court has previously stated that "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." (quoting In re Fine, 837 F.2d 1071, 1075, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988)).

(Emphasis added). *Accord: W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 220 USPQ 303, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984):

> To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, **is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.**

Applicant believes that hindsight reconstruction from has been used to reject the instant invention. Recall that the instant patent application concerns *controlling from the head-end* which channels can be viewed on a remote module (RM) by transmitting a list of permitted channels to the remote module by embedding the list in the non-visible portion of a standard video scan line of a video signal. In more particular, and examining each reference in turn:

1. Perlman teaches a channel controller that can be used *by an end user* to block certain specific shows or channels according to characteristics that have been specified by the broadcaster. Guide materials that describe each television program are received "over a predetermined out-of-band channel" (column 9, lines 25-29). Viewing criteria *established by the end user* are used to interpret which programs will be viewable based

on the guide materials. Permitted television channels are *not* transmitted from the head-end but may be compiled in the RM as a computational convenience based on the user-established criteria.

Perlman further teaches the use of a scrambler module 309 which receives authorization codes (permitted channels) from a head-end via a predetermined out-out-band channel (col. 8, lines 25-29). However, those codes are not received via instructions embedded in a standard NTSC scan line which is part of the overscan portion of the video signal.

2. Small teaches a method for encoding secondary signals (such as audio) in a manner such that the signal may be recorded on a videocassette or broadcast (Abstract) so that a separate audio track may be recorded / broadcast therewith. Small states without elaboration that his method could also be used to transmit other types of information (including digitally encoded text) within the overscan portion of the scan line. (See, e.g., Column 11, line 67 through column 12 line 4).

Of course, Small does not teach or suggest that the information that is transmitted might be used in any kind of *control* sense – Small's primary application is transmission of music. Further, a video image that has been modified according to Small for the transmission of digital information is *not* a standard NTSC video signal. Of course, the reason that he confines his modifications to the overscan portion of the image is that, otherwise, the modified signal would be outside of the standard. As support for this

assertion, one need only need turn attention to Small's digital encoding scheme (e.g., Figures 2 and 3) to recognize that the scan line – after insertion of this data values – would not comply with NTSC image standard.

3. Collings teaches a method / apparatus for *allowing an end user* to selectively block certain television programming. Data packets that describe the programming are transmitted in the Extended Data Services ("XDS") portion of a video signal during the video-blanking interval – *not* via instructions embedded in a standard video scan line. (Column 4, lines 16-20) Viewing criteria established by the end user are used to interpret which programs are viewable based on the data packets (i.e., "guide") materials.

The instant invention operates by embedding a RM identifier and a list of permitted channels within an NTSC standard overscan scan line.

In summary, none of the references above teach transmitting a list of permitted channels *embedded* within at least one NTSC standard overscan scan line for use in controlling a remote module.

More specifically, applicant believes that the examiner has used the instant application as template or blueprint and has impermissibly reconstructed it by piecing together unrelated prior art references in a piecemeal fashion. In applicant's view, the Examiner has failed to satisfactorily explain why the person of ordinary skill in the art who was seeking to solve the problem posed by the instant inventor, would assemble the disparate references (Perlman / Small / Collings) to find a method of transmitting control information to a remote

module via a standard video signal that did *not* utilize the VBI / HBI, or a separate data channel as is required by the amended claims. Thus, in applicant's view, the Examiner has impermissibly used hindsight to reconstruct applicant's invention and, as a consequence, it is believed that rejection under 35 USC 103(a) of Claim 17 is inappropriate and should be withdrawn.

Comments Specific to this Rejection under 35 USC 103

Recall the words of *In re Fritch* quoted previously "The mere fact that the prior art may be modified in a the manner suggested by the Examiner does not make the modification obvious **unless the prior art suggested the desirability of the modification**". *Id.*, emphasis added.

Here, the Examiner has failed to provide such motivation. That is, the Examiner claims that it would have been obvious to modify Perlman (parental control circuitry to be used with broadcast television) to transmit data in the overscan portion of the video signal "for the desirable benefit of taking advantage of scan lines that are already included in a standard video signal, but are generally not displayed by standard TV sets." Office Action at pages 4-5.

In reply, applicant believes that attributing such motivation to Perlman is improper hindsight. That is, although Perlman certainly *could* have modified his invention in the manner of applicant, there would have been no incentive to do so. Applicant found a single preferred embodiment of Perlman's method of transmitting EPG ("electronic program guide") materials to end users: appropriation of a separate channel. Perlman has no stated motivation for changing to a more restrictive transmission modality involving only use of the limited time intervals (and signal bandwidth) that is available during the VBI or within the overscan region. Where an

entire channel has been preempted, there is no need to conform to *any* standard or be concerned about the sort of timing and bandwidth considerations that are inherent to applicant's approach. Indeed, applicant cannot find an instance in Perlman where any format for his transmitted EPG data is specified. Thus, to speculate that Perlman would somehow be motivated to change from a "whole-channel" approach to sending within the more restrictive "overscan" environment is to ascribe a motivation that is just not present in Perlman.

As a consequence, applicant believes that the Examiner has failed to provide a motivation or suggestion *in the prior art* that would support the combination relied upon. Thus, applicant believes the instant rejection of Claim 17 as-amended in view of Perlman / Small / Collings is improper and should be withdrawn.

According to **Paragraph 5**, Claims **22** and **28-39** stand as rejected under 35 USC 103(a) as being unpatentable over Perlman, Small & Collings and further in view of Sprague (USPN 5,247,575).

Claims 22, 28, and 37

It is said that, considering Claims **22, 28,** and **37**, even though the combination of Perlman, Small, and Collings teaches transmitting authorization codes to a user premise, that combination does not explicitly discuss assigning an individual security key code to a plurality of RMs. However, it is further said that Sprague, which is directed to transmitting authorization data to subscribers in a video distribution system, teaches each user maintaining a unique key code that enables decoding of authorized material addressed to that subscriber.

Finally, it is said that it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the combination of Perlman / Small / Collings with the feature of using individual security key codes for each user terminal for the additional purpose of securely authenticating user terminals, thereby ensuring that only the appropriate user terminals receive and store authorization data (per Sprague).

In reply, applicants would reiterate that the Federal Circuit has repeatedly cautioned against using the inventor's own creation as a blueprint or "template" in forming rejections under 35 USC 103 (see, e.g., *In re Fritch*, cited previously) and, indeed, applicant feels that this is precisely what the examiner has done in rejecting Claims 22 and 28-39 based on *four* different references. Turning, first to the new reference (Sprague):

4. Sprague teaches a large-scale method for distributing information to users in the field and accounting for any such information requested and received (col. 1, lines 17-28). It also pertains to monitoring access to information by a plurality of individual users. (*Id.*). As have many others, Sprague transmits information using the VBI and/or an FM sideband (Figure 1) – not within a standard NTSC scan line that is part of the overscan region. Applicant could not find a single instance where Sprague suggested blocking or permitting the viewing of video from the head-end by transmitting a list of permitted channels to a remote module. In brief, Sprague's patent is directed toward a completely different application area than that of the instant application.

Finally, none of the references cited above utilizes applicant's unique method of embedding information within a standard NTSC scan line in the overscan portion of the video signal.

As a consequence, it is believed that Claims 22, 28, and 37 as-amended are in condition for allowance and instant objections against them should be removed.

Claims 29 and 39

Turning next to the rejection of Claims 29 and 39, it is said that Small teaches that one of the overscan lines may be used.

In reply, for all of the reasons identified above, applicant believes that this claim is in condition for allows. For example, it is believed that the instant rejection – involving as it does four different references – has impermissibly used applicant's own invention as a template from which to construct the instant rejection.

Further, Small teaches that a portion of the overscan region may be used for the transmission of data. However, Small does not – nor does any other reference cited – utilize a standard NTSC video signal to transmit digital information as part of the overscan portion of a video signal.

As a consequence, it is believed that these claims as-amended are in condition for allowance and the instant rejection should be withdrawn.

Claim 30

Turning next to the rejection of Claim 30 it is said that the claimed elements of the remote unitary module, which is said to correspond with subject matter mentioned above in

rejection of Claims 17 and 22, are similarly analyzed. It is said that the additional claimed feature of the first tuner being configurable to accept at least two channels of video and switchably receiving a selected one of the two channels of video is necessarily included in the operation of Perlman. It is further said that the claimed video controller reads on the operation of the Close Caption and OSD device 60 of Collings.

In reply, for all of the reasons identified above, applicant believes that this claim as-amended is in condition for allowance. For example, it is believed that the instant rejection – involving as it does four different references – has impermissibly used applicant's own invention as a template from which to construct the instant rejection.

Further, Perlman does not teach or suggest that an NTSC standard video signal might be used to transmit information to the remote module as is required by this claim as-amended.

As a consequence, it is believed that this claim as-amended is in condition for allowance and the instant rejection should be withdrawn.

Claim 31

Turning next to the rejection of Claim 31 it is said that the claimed elements of the remote unitary module, which is said to correspond with subject matter mentioned above in rejection of Claims 17 and 22, are similarly analyzed. It is said that the additional claimed feature of the first tuner being configurable to accept at least two channels of video and switchably receiving a selected one of the two channels of video is necessarily included in the operation of Perlman.

In reply, and for at least all of the reasons identified above, applicant believes that this claim as-amended (via the independent claim from which it depends) is in condition for allowance. For example, it is believed that the instant rejection – involving as it does four different references – has impermissibly used applicant's own invention as a template from which to construct the instant rejection.

Further, Perlman does not teach or suggest that an NTSC standard video signal might be used to transmit information to the remote module as is required by this claim as-amended.

As a consequence, it is believed that this claim as-amended is in condition for allowance and the instant rejection should be withdrawn.

Claim 32

Turning next to the rejection of Claim 32 the applicant is referred to Collings (at col. 8, line 67 through col. 9, lines 1-4 and col. 11, lines 50-64).

In reply, and for at least all of the reasons identified above, applicant believes that this claim as-amended (via the independent claim from which it depends) is in condition for allowance. For example, it is believed that the instant rejection – involving as it does four different references – has impermissibly used applicant's own invention as a template from which to construct the instant rejection.

Further, Collings does not teach or suggest that an NTSC standard video signal might be used to transmit information to the remote module as is required by this claim as-amended.

As a consequence, it is believed that this claim as-amended is in condition for allowance and the instant rejection should be withdrawn.

Claim 33

Turning next to the rejection of Claim 33 the applicant is referred to the STC 507 of Perlman and apparatus 20 of Collings necessarily transmit baseband video to a TV set.

In reply, and for at least all of the reasons identified above, applicant believes that this claim as-amended (via the independent claim from which it depends) is in condition for allowance. For example, it is believed that the instant rejection – involving as it does four different references – has impermissibly used applicant's own invention as a template from which to construct the instant rejection.

Further, neither Collings nor Perlman teaches or suggests that an NTSC standard video signal might be used to transmit information to the remote module as is required by this claim as-amended.

As a consequence, it is believed that this claim as-amended is in condition for allowance and the instant rejection should be withdrawn.

Claims 34 and 36

Turning next to the rejection of Claims 34 and 36, it is said that the RF modulator 39 in Collings modulates all video signals on the same frequency, either channel 3 or channel 4.

In reply, and for at least all of the reasons identified above, applicant believes that this claim as-amended (via the independent claim from which it depends) is in condition for allowance. For example, it is believed that the instant rejection – involving as it does four

different references – has impermissibly used applicant's own invention as a template from which to construct the instant rejection.

Further, Collings does not teach or suggest that an NTSC standard video signal might be used to transmit information to the remote module as is required by this claim as-amended.

As a consequence, it is believed that these claims as-amended are in condition for allowance and the instant rejection should be withdrawn.

Claim 35

Turning next to the rejection of Claim 35, it is said that the claimed video display device reads on the TV set 22 of Collings.

In reply, and for at least all of the reasons identified above, applicant believes that this claim as-amended (via the independent claim from which it depends) is in condition for allowance. For example, it is believed that the instant rejection – involving as it does four different references – has impermissibly used applicant's own invention as a template from which to construct the instant rejection.

Further, Collings does not teach or suggest that an NTSC standard video signal might be used to transmit information to the remote module as is required by this claim as-amended.

As a consequence, it is believed that this claim as-amended is in condition for allowance and the instant rejection should be withdrawn.

* * *

In view of the foregoing, it is submitted that the claims as-amended herein are in condition for allowance. Early and favorable action is, therefore, earnestly solicited.

Respectfully submitted,

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